

REMARKS

Status of the Claims

Claims 1-5 and 8-21 are pending in this application. Claim 11 has been amended to correct an oversight with regard to a previous Response concerning the weight range for zwitterionic surfactant b).

Claim Rejections under 35 U.S.C. § 103

The instant claims are rejected as being obvious over Hellsten (U.S. 5,902,784).

First, to address particular points raised by the Examiner:

Point 9. The amount of palmitic acid (=C16 acid) disclosed in Hellsten et al. does not reach 20% which is required as a minimum for component a) in claim 1 for the drag-reducing product as such. Applicants calculate that this could be **at most** 7.7%(w/w) in Example 7 in Hellsten, actually even lower since stearic acid is also present within this amount. Consequently the amount of component b) would be derived from the other acids, and would be **at least** 85.2% (stearic acid should also be added here, but the amount is not specified) which exceeds the upper limit in claim 1 which is 70% for component b). The anionic compound would be 7.4%, but this compound is not within the definition of the sulphates/sulphonates in claim 1. Further, the experiment of Example 7 was performed in deionized water.

Point 10. See comment in point 9.

Furthermore, it is not clear what the Examiner refers to as "other components". If he means sodium dodecylbenzenesulphonate, that compound is not included in the anionic surfactant under part c) in claim 1. Whether or not the "open language" would not exclude other components is irrelevant if the specific claim requirements are not met.

Point 11. The present application claims the specific mixture of betaines in specific amounts also comprising the specific anionic surfactant in a specific amount. These features have not been disclosed together in Hellsten et al. The mixture of compounds of the present application presents a selection that yields a better effect than the prior art has actually disclosed or suggested.

Point 12. The properties are not combined. See e.g. the comparison between test 8 (according to the invention) and the comparative tests 2 and A. The high level 60°C reached by the combination of the betaines used in test 2 and test A, is not reached by either test 2 or test A alone, which it would have been for at least one of these latter tests if the Examiner's reasoning is followed. Thus, the combination of the betaines in test 2 and test A yields this high upper level through a synergy between the components, not just an additive effect.

Notwithstanding the various Points that have been discussed above and in previous Responses, the simple fact is that the instant claims are limited to a mixture of two very specifically defined families of zwitterionic surfactants and a family of anionic surfactants. The prior art, Hellstern et al. in particular, gives no hint to this very specific mixture, but, at most presents a galaxy of possibilities that may include or overlap these specific families and may present a prima facie case for obviousness. Any such prima facie case for obviousness is absolutely rebutted by the fact that the mixture of the invention unexpectedly presents a selection that yields a better effect than the prior art actually discloses or suggests, such fact being a secondary consideration that renders the instant claims patentable (*Graham v. Deere* , 383 U.S. 1) .

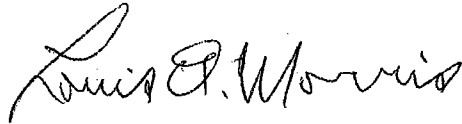
The better effect realized by the selection of the mixtures of the invention is convincingly shown by the instant examples. The Tables of Examples 1 and 2 illustrate the superiority of drag-reducing properties of embodiments of the invention, as compared to mixtures that lack one of the Zwitterionic compounds of the invention, in terms of temperature ranges over which those properties are in effect. One of ordinary

skill in the art familiar with Hellstern et al. would have no idea that the very particular selection comprising the present invention realizes this surprising result.

Conclusion

In view of the actions taken and arguments presented, it is respectfully submitted that each and every one of the matters raised by the Examiner has been addressed by the present Response and that the present application is now in condition for allowance.

Respectfully submitted,

A handwritten signature in cursive script, reading "Louis A. Morris".

Louis A. Morris
Attorney for Applicant(s)
Reg. No. 28,100

Akzo Nobel Inc.
Legal & IP
120 White Plains Road, Suite 300
Tarrytown, NY 10591
Tel No.: (773) 320-6774